

National Science Education Standards met during hands on activities:

Content Standard Unifying Concepts and Processes: Evidence, models, and explanation (K-12)

Models are tentative schemes or structures that correspond to real objects, events, or classes of events, and that have explanatory power. Models help scientists and engineers understand how things work. Models take many forms, including physical objects, plans, mental constructs, mathematical equations, and computer simulations.

Standard A2: Science as Inquiry: Understanding about scientific inquiry (K-4)

Scientists use different kinds of investigations depending on the questions they are trying to answer. Types of investigations include describing objects, events, and organisms; classifying them; and doing fair test (experimenting).

Standard A2: Science as Inquiry: Understanding about scientific inquiry (5-8)

Different kinds of question suggest different kinds of scientific investigations. Some investigations involve observing and describing objects, organisms, or events; some involve collecting specimens; some involve experiments; some involve seeking more information; some involve discovery of new objects and phenomena; and some involve making models.

Standard A2: Science as Inquiry: Understanding about scientific inquiry (5-8)

Scientific explanations emphasize evidence, have logically consistent arguments, and use scientific principles, models, and theories. The scientific community accepts and uses such explanations until displaced by better scientific ones. When such displacement occurs, science advances.

Standard A2: Science as Inquiry: Understanding about scientific inquiry (5-8)

Scientific investigations sometimes result in new ideas and phenomena for study, generate new methods or procedures for an investigation, or develop new technologies to improve the collection of data. All of these results can lead to new investigations.

Standard B1: Physical Science: Properties of objects and materials (K-4)

Matter can exist in different states—solid, liquid, and gas. Some common materials, such as water, can be changed from one state to another by heating or cooling.

Standard B3: Physical Science: Light, Heat, Electricity, and Magnetism (K-4)

Light travels in a straight line until it strikes an object. Light can be reflected by a mirror, refracted by a lens, or absorbed by the object.

Standard D1: Earth and Space Science: Structure of the Earth System (5-8)

Land forms are the result of a combination of constructive and destructive forces. Constructive forces include crustal deformation, volcanic eruption, and deposition of sediments, while destructive forces include weathering and erosion.

Standard D2: Earth and Space Science: Objects in the Sky (K-4)

The Sun provides the light and heat necessary to maintain the temperature of the Earth.

Standard D2: Earth and Space Science: Earth's History (5-8)

The earth processes we see today, including erosion, movement of lithospheric plates and changes in atmospheric composition, are similar to those that occurred in the past. Earth history is also influenced by occasional catastrophes, such as the impact of an asteroid or comet.

Standard D3: Earth and Space Science: Earth in the solar system (5-8)

The earth is the third planet from the sun in a system that includes the moon, the sun, eight other planets and their moons, and smaller objects, such as asteroids and comets. The sun, an average star, is the central and largest body in the solar system.